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Editorial

Urban Planning by Experiment: Practices, Outcomes, and Impacts

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Abstract

The impact of urban experimentation on urban planning approaches is so far insufficiently assessed and discussed. This thematic issue sets out to investigate the possibilities and limitations of ‘urban planning by experiment,’ defined as an approach that uses experimentation to innovate and improve urban planning instruments, approaches, and outcomes. It brings together eight contributions presenting original research on urban experimentation and its relation to urban planning. All contributions are empirically grounded in (illustrative) case studies, mostly from European cities. Here, we summarize and discuss the major findings across the eight contributions with respect to three key themes: the practices of urban experimentation, its outcomes, and its impacts on urban planning. We conclude that the practices of urban experimentation described in the contributions generated a wide variety of substantive and learning outcomes, which, according to the authors, represent worthwhile additions or alternatives to the current repertoire of approaches and instruments of urban planning. However, except for a single case, large-scale integration of experimentation in established approaches to urban planning was not observed, let alone a complete transformation of urban planning practices. An area for further research concerns the relation between the way urban experiments are organized and conducted, and their impact on urban planning.

Keywords

sustainable urban development; urban experiments; urban planning; urban transformation

Issue

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1. Introduction

The increasing complexity of cities and urban problems presents a challenge to established practices of urban planning (Wolfram, Borgström, & Fareilly, 2019). At the same time, cities have witnessed a surge of urban experiments (Bulkeley et al., 2019; Evans, Karvonen, & Raven, 2016), interventions with the aim to innovate, learn, or gain experience with respect to complex urban problems and possible solutions (Bulkeley & Castán Broto, 2013). Urban experimentation may thus hold great potential for informing and re-directing established approaches to urban planning. However, the term has been used for a diversity of practices and urban experimentation has

hardly been investigated specifically from an urban planning perspective. More importantly, the impact of urban experimentation on urban planning approaches is so far insufficiently assessed and discussed.

This thematic issue sets out to investigate the possibilities and limitations of ‘urban planning by experiment,’ defined as an approach that uses experimentation to innovate and improve urban planning instruments, approaches, and outcomes (Scholl & de Kraker, 2021). It brings together eight contributions presenting and discussing original empirical research on urban experimentation and its relation to urban planning. Urban planning is here understood as the established practices of public authorities—including rationalities, instruments, and

modes of governance—that aim to steer urban development into a desired direction (Wolfram, 2018). Below, we summarize and discuss the major findings across the eight contributions with respect to three key themes in the call for papers, i.e., the practices, outcomes, and impacts of urban experimentation. The latter refers specifically to the question of how and to what extent urban experimentation has changed urban planning in practice.

All contributions are empirically grounded in (illustrative) case studies, mostly from European cities. Scholl and de Kraker (2021) studied the experimentation practices of Dutch city labs; Evans, Vácha, Kok, and Watson (2021) report on the perspectives of city coordinators in the European Union's H2020 Smart Cities and Communities urban innovation program; and Eneqvist and Karvonen (2021) investigated the functional roles of the municipality of Stockholm (Sweden) in urban experimentation. Sharp and Raven (2021) looked at the Net Zero Initiative of Monash University in Melbourne (Australia); and Räuchle (2021) studied a Real-World Lab dealing with social cohesion in a super-diverse neighborhood in Hanover (Germany). Marrades, Collin, Catanzaro, and Mussi (2021) report on a Placemaking Living Lab transforming the waterfront of the old port of Valencia (Spain), and Wanner, Bachmann, and von Wirth (2021) focus on an 'experimentation episode' in the development of a central brownfield site in Wuppertal (Germany); whereas the urban experiments studied by these authors address current environmental or socio-economic sustainability issues, the case investigated by Pelzer, Hildingsson, Herrström, and Stripple (2021) presents a notable exception. They report on an intriguing experiment conducted by a land-owning church, Lund Cathedral (Sweden), addressing the question of how to plan for the very long term. Taken together, these eight contributions provide a broad overview of current practices, outcomes, and impacts of urban experimentation in relation to urban planning.

2. Practices

The urban experiments covered in this thematic issue are quite diverse in terms of experimental practices. An important difference concerns the scale of experimentation, varying from short-term, small-scale urban development projects (Scholl & de Kraker, 2021) to a long-term, large-scale experimental waterfront redevelopment project (Marrades et al., 2021). In all cases, a variety of urban actors is involved in experimentation, but the cases differ according to which actor is in the lead. This ranged from municipalities (Eneqvist & Karvonen, 2021; Evans et al., 2021; Marrades et al., 2021) or universities (Räuchle, 2021; Sharp & Raven, 2021) to citizens as 'city makers' (Scholl & de Kraker, 2021) and 'change makers' (Wanner et al., 2021), or, as mentioned before, a church (Pelzer et al., 2021).

Both scale and leading actor seem to impact the level to which and how the experimental process is struc-

tured and formalized, with larger-scale experiments led by municipalities or universities being most structured. For example, experimentation in Dutch city labs, which are mostly led by activist creative professionals and residents, is generally action-oriented, resource-limited, and largely driven by opportunities (Scholl & de Kraker, 2021). As a consequence, not much effort is spent on connecting to the urban development agenda of the municipality, on formulating learning questions before, and on the wider dissemination of lessons after the experiment.

However, even when experiments are more structured and better funded in case municipalities are formally in charge, similar issues arise. The city coordinators interviewed by Evans et al. (2021) complain that experimentation in the EU-funded innovation projects does not generate much useful learning, while lessons are not well embedded and scaled to achieve broader transformation. This has multiple causes. Project-based funding drives a hunt for novel topics and allows little time and resources for systematic identification of key knowledge gaps before and dissemination of lessons after the project. Acquisition of these projects and topic selection is driven by a few entrepreneurial individuals within municipalities and not by the priorities of the local urban development agenda. The projects are not well-designed to answer key questions, generally focus on the technical performance of an innovation, and fail to fully address the social, political, and economic factors that determine its potential to be adopted more widely. Finally, wider dissemination of lessons and upscaling of innovations is hindered by the sectoral structure of municipal organizations and the lack of frameworks for the city coordinators to store, analyze, and share the lessons learned in a more organized way.

Even in cities like Stockholm, where urban experimentation is actively promoted by the municipality, effective learning and internal upscaling and implementation of results is problematic (Eneqvist & Karvonen, 2021). Major reasons include the fragmented organization of the municipality and the often poor connection between experimentation and the city's long-term agenda. The latter, in turn, is due to experiments often being isolated initiatives of individuals, similar to Evans et al. (2021), but also to difficulties the municipality faces in taking the lead in experiments. While companies are eager to initiate experiments, take the lead, and set priorities in favor of short-term goals, there is a lack of leadership competences at the municipality.

In case the municipality is not directly or indirectly involved in the urban experiments, it is even more difficult to connect to the local urban planning and development priorities and to disseminate lessons effectively (Scholl & de Kraker, 2021). However, according to Sharp and Raven (2021), shifting to a larger scale of experimentation (precinct) offers more opportunities for other actors to anchor experiments in formal plans, because this represents a functional scale at which urban planning commonly operates. They also note, however, that

framing experiments in terms of these plans may conflict with the open-ended nature of urban experimentation.

3. Outcomes

The outcomes of urban experimentation can be more or less substantive, and the contributions to this thematic issue report on a wide range. Substantive outcomes concern positive changes in the urban area where the experiment was conducted. They appear to be more important in larger projects with a major focus on achieving local improvements, rather than drawing lessons to be applied elsewhere. Marrades et al. (2021) find that many outcomes of this type were generated by the experimental redevelopment of the waterfront in Valencia: new uses for buildings and structures, active participation of residents and community organizations, a broadened group of users including young people, and expanded public use of the area. Outcomes may also concern less tangible results that create conditions for positive local change, such as the area development concept and the novel governance structure which were important outcomes of the ‘experimentation episode’ in the development process described by Wanner et al. (2021).

However, urban experiments are often conducted at a relatively small-scale, with sometimes no or only temporary local effects, and have learning of more broadly applicable lessons as the major goal. These lessons may concern improved designs of innovations, more effective approaches to address certain challenges, or an improved understanding of a problem. The city coordinators interviewed by Evans et al. (2021), for example, were focused on learning how to scale innovations and embed lessons into organizational structures and cultures. The alternative uses of open spaces trialled by the Real-World Lab studied by Räuchle (2021) indicated more effective ways to take residents’ perspectives into account and to expand their participation, and to give a greater role to learning and reflection before the start of an actual planning process. In the case described by Pelzer et al. (2021), reflection on a series of artist interventions resulted in a shared understanding among the church managers of the problem, the benefits of the chosen approach, and the values at stake when ‘planning for the very long term.’

In larger projects, learning is perhaps not the primary goal, but is certainly an important one. Marrades et al. (2021) report on a manifesto with a guiding framework, an outcome which represents a synthesis of lessons learned regarding their experimental place-based approach to planning. In the Net Zero Initiative of Monash University in Melbourne, also a larger-scale project, the desired outcome is in the first place substantive (precinct-scale decarbonization), but also to learn about the many material, social, and economic aspects of decarbonization of the three sectors that make up the majority of carbon emissions in Australian cities: energy, mobility, and buildings (Sharp & Raven, 2021).

However, where learning-from-failure can be, in principle, an important mechanism in small-scale experiments, Sharp and Raven (2021, p. 203) note that “political acceptance of failure remains difficult, and this might be even more challenging at precinct scale, as precincts might be perceived as ‘too big to fail,’ hence limiting the potential of learning and transformation.”

4. Impacts

Whereas most contributions in this thematic issue reported substantive and/or learning outcomes for the cases studied, impacts—actual changes in the practice of urban planning—appear to be scarce thus far. The case of Stockholm might be the exception to the rule, because here the municipality actively facilitates and supports experiments and has adopted urban experimentation as a means to realize its sustainability ambitions (Eneqvist & Karvonen, 2021). Yet, interviews with Stockholm municipal officials revealed that opinions about this are mixed and that still many tensions exist between the experimentation approach and more traditional urban planning practices. This concerns the risk-taking nature of experimentation, the fact that often other actors are in the lead and setting the goals, the problematic relation between experiments and the long-term planning agenda, and possible conflicts with democratic principles and the public good. Except for the contribution by Evans et al. (2021), none of the other case studies report on actual impacts. Evans et al. (2021) found that despite the limited learning potential of EU-funded urban innovation projects, the city coordinators managed to bring about changes in their municipal organizations and equip these better to drive the physical transformation of cities needed for sustainable development. These include creating new cross-cutting, collaborative platforms, units, and functions, as well as changing guiding principles and ways of working.

Scholl and de Kraker (2021) did not study the impacts of Dutch city labs on urban planning practice, but expect that these will be limited given the nature of experimentation in these labs. Urban planning priorities do not play a major role in topic selection, and a structured approach to experimentation and learning is often lacking, as is active dissemination of lessons to the municipality. In the cases studied by Wanner et al. (2021) and Räuchle (2021), a good working relationship with the municipality was maintained. However, in both cases, the opinions of urban planners were mixed, regarding whether urban experimentation would be a meaningful addition to established planning practices (Räuchle, 2021), and regarding whether the successful urban experiment indicated the need for a more collaborative and participatory planning culture (Wanner et al., 2021). Also in the experiment by Lund Cathedral on ‘planning for the very long term,’ the urban planners were facilitative and sympathetic, but still mostly “unintentionally ignorant” about the principles of the experiment, and thus far no impacts

have been noticed (Pelzer et al., 2021). Finally, Marrades et al. (2021) see great potential for their framework for a Placemaking Living Lab approach to become an integral tool for urban development and support the transformation of traditional planning. However, these future and wider impacts were beyond the confines of their case study.

5. Conclusion

The practices of urban experimentation described in the contributions to this thematic issue generated a wide variety of substantive and learning outcomes, which, according to the authors, represent worthwhile additions or alternatives to the current repertoire of approaches and instruments of urban planning. However, except for the case of Stockholm, large-scale integration of experimentation in established approaches to urban planning was not observed, let alone a complete transformation of urban planning practices. Of course, in most of the cases studied it is too early to draw definite conclusions about such impacts. Yet, the contributions provide some indications of whether such impacts can be expected. Scholl and de Kraker (2021) posit that impacts depend on practices and on *how* urban experiments are conducted. As for characteristics that contribute to impact, the authors mention: a structured approach to experimentation, co-creation of experiments, active and targeted dissemination of lessons learned, and experiments as linking pins between municipal policy goals and the needs of urban society. Several of these aspects relate to the observations of Evans et al. (2021), who concluded that much more impact can be expected when experiments are better designed to answer key learning questions and when frameworks are available to store and share lessons in an organized way. The problem of a disconnect between the goals of urban experiments and the long-term urban development agenda of the municipality is mentioned by both Evans et al. (2021) and Eneqvist and Karvonen (2021). The other contributions do neither support nor disprove these possible relations between practices and impacts, indicating a need for further empirical research.

Several authors, for example Evans et al. (2021), argue that when a transformation of cities is required to address major sustainability challenges, such as climate change, a transformation of established urban planning practices is also needed. This would constitute a trend break, however, in the historical development of urban planning practices. According to Wolfram (2018, p. 106):

Although the scientific planning discourse may have been dominated by specific ideas for certain periods of time, this has in practice not necessarily resulted in a succession of radical ‘paradigm shifts.’ Rather, former interpretations have become superimposed, recombined and integrated with new ones, thus shaping complex patterns of urban planning rationalities

adopted within national and local institutional contexts, and linked to different sets of (state) competencies, instruments and objectives.

This suggests that “urban planning in practice pursues different rationalities simultaneously and independently, thereby inevitably contributing to development contradictions and conflicts” (Wolfram, 2018, p. 106), which also seems to apply to the new rationality and associated instruments and objectives of urban experimentation. In Stockholm, for example, this new approach sits—somewhat uncomfortably—next to more traditional planning approaches (Eneqvist & Karvonen, 2021), and a similar development has recently been reported for cities in Denmark and Norway (Berglund-Snodgrass & Mukhtar-Landgren, 2020). These authors explain the mixed feelings of urban planners towards urban experimentation, as reported in this thematic issue by Eneqvist and Karvonen (2021), Räuchle (2021), and Wanner et al. (2021), as arising from a conflict between institutional logics (beliefs that shape how individuals act). Wolfram (2018) makes similar points based on a conceptual analysis. Berglund-Snodgrass and Mukhtar-Landgren (2020) observed in their three case studies that urban planners think in a “public sector logic,” which deviates at significant points from the “experimental logic” of urban experimentation. Although urban planners adopted various tools and concepts from urban experimentation, they remained skeptical to altering priorities and ways of working in any fundamental way.

As there appear to be considerable barriers to transformation of urban planning approaches within municipal organizations, a better approach may be to establish new organizations dedicated to urban experimentation at the boundary of urban government and society, as has also been suggested by Scholl and Kemp (2016). Such a boundary organization could widely implement urban experimentation to support urban transformation, collaborate where possible with the municipal urban planners, and, in the spirit of ‘urban planning by experiment,’ continue to challenge these planners to innovate their repertoire with new ideas and instruments (Wolfram et al., 2019).

Conflict of Interests

The authors declare no conflict of interests.

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